DUST CLOUDS PRODUCED BY LANDINGS ON AL RLESS BODI ES

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ABSTRACT: Dust clouds can be produced by landings on airless planetary bodies, as well as on bodies with significant. atmospheres.

Text:

Lorenz 1993 has discussed the formation of dust clouds during landings of spacecraft on planets and satellites having significant atmospheres. Dust clouds have also been observed during landings on an airless body (NASA 1967, Jaffe 1971). Some measurements of the velocity of the dust particles as they leave the landing site have been reported (Jaffe 1967).

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REFERENCES

JAFFE, I.D. 1971. Blowing of lunar soil by Apollo 12: Surveyor 3 evidence. Science 171, 798-799.

LORENZ, R.I). 1993. Wake-induced dust cloud formation following impact of planetary landers. *Icarus* 101, 165-167.

NASA 1969. Debriefing of Apollo 12 Astronauts. NASA Johnson Space Flight Center, Houston, TX.